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### A Collapsible Quail Trap

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Great

Plains



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The trap is made of 14-gage galvanized welded wire fabric. The hinged design of the sides with the top allows disassembly into a light weight, flat compact unit, which can be easily transported in quantity.

**Keywords:** Callipepla squamata, Colinus virginianus, quail trap.

Wildlife researchers and game managers occasionally need to trap live birds as part of their official duties. However, it is difficult to transport many bulky cages around to different locations.

Several efforts have been made to solve this problem. Modifications of the Stoddard (1931) quail trap have included changes to facilitate moving and storage. Ligon (1946) developed a collapsible trap from separate panels of twine netting or hardware cloth stretched over and fastened to metal frames. Schultz (1950) described a trap made from poultry netting which can be collapsed by bending the wire netting. More recently, Snyder (1978) describes a collapsible, net-topped trap for bobwhite quail (*Colinus virginianus*).

Most quail-trapping requires an economically constructed trap that can be easily set up, collapsed, transported, and stored, and still is lightweight, strong, and durable. The trap described here meets the requirements and is similar to the one shown by Gallizioli (1965).

#### Description

The design is patterned after Stoddard's (1931) trap (fig. 1), using 14-gage 1-by-2-inch mesh, galvanized, welded,

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Figure 1.—Collapsible quail trap.

wire fabric. Twenty traps can be made from a 4-foot-wide, 100-foot roll of wire (fig. 2). Hog-nose rings (we used Seymour H2 shoat rings<sup>2</sup>) are used to hinge the 4 sides and an access door to the top (fig. 3). The short side sections are attached to the top with four rings, and the long side sections are attached with five rings. The outside hog-nose rings are placed through the sides' second mesh to prevent

<sup>2</sup> Mention of trade names is for the convenience of the reader and does not imply endorsement by the U.S. Department of Agriculture to the exclusion of equally suitable products.

long side	short side		long side		short side
long side	short side		long side		short side
top	funnel	funnel	funnel		
	door	door	funnel	top	

Figure 2.—Method of cutting trap sections for two traps from 4-foot-wide roll of wire fabric.



Figure 3.—Schematic of collapsible quail trap.

them from slipping around the corners when the trap is collapsed. The access door is installed with two hog-nose rings and can be latched closed by wire rings made from scrap fabric (fig. 3).

The side sections are cut to leave three 1-inch tangs on the edges that will form the corners of the trap (fig. 3). These are bent into "U-shaped" hooks so that the point will be to the outside of the trap. To set up the trap, the sides are folded down, and the corners secured by alternately placing each hook around the end vertical wire of the adjacent side. When collapsed, the sides can be folded either under or over the top.

The trap has two funnel entrances placed diagonally on each of the two long sides (figs. 1 and 3). To make a funnel, remove cross wires along the sides of the funnel section (fig. 3). After the piece is formed into a 10-inch-long, three-sided tunnel, the exterior wire tangs are shaped outward into open hooks, and the interior tangs are turned inward to form the trap funnel (fig. 3). In the erected trap, the funnels are secured in the trap by the hooks.

A bead of silicone glue applied to sharp wire ends protects field personnel and trapped quail from scratches and cuts. Personnel constructing the traps should wear leather gloves and long-sleeved shirts.

#### Discussion

This trap has been used successfully to capture 390 scaled quail (*Callipepla squamata*) (0.76 quail per trap day) during studies of scaled quail habitat requirements, food habits, and reproductive ecology. Three quail died as a result of trapping; one had a leg injury and was sacrificed, and the others probably died from exposure.

The collapsible trap is reasonably economical to construct. Twenty traps cost about \$80 for materials and required 16 hours of labor to construct.

The trap is lightweight (4 pounds), durable, and easily set up and collapsed. Traps left outside for more than 1 year have not rusted or otherwise deteriorated. The trap is strong enough to support heavy limbs placed over it to provide shade and thwart disturbance by cattle. When collapsed, a trap measures 24 by 36 by 0.5 inches. More than 200 can be transported in a one-half-ton pickup. When removed, the trap funnels can be stacked by resting one inside the other.

#### Literature Cited

- Gallizioli, Steve. 1965. Quail research in Arizona. Contribution from Federal Aid Project W-78-R, 11 p. Arizona Game and Fish Department, Phoenix.
- Ligon, J. Stokely. 1946. Upland game bird restoration through trappings and transplanting. 77 p. New Mexico Game and Fish Commission, Albuquerque.
- Schultz, Vincent. 1950. A modified Stoddard quail trap. Journal of Wildlife Management 14:243.
- Snyder, Warren D. 1978. The bobwhite in eastern Colorado. Technical Publication 32, 88 p. Colorado Department of Natural Resources, Denver.
- Stoddard, Hubert L. 1931. The bobwhite quail: Its habits, preservation and increase. 559 p. Charles Scribner's Sons, New York, N.Y.



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## Rocky Mountain Forest and Range Experiment Station

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